

REMARKS

Reconsideration of this application is respectfully requested. Claims 1, 2, 7-13, 17, and 20-23 stand rejected under § 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,455,958 to Flurry et al ("Flurry"). Claim 3 stands rejected under § 35 U.S.C. 103 (a) as being unpatentable over Flurry. Claim 4 stands rejected under § 35 U.S.C. 103(a) as being unpatentable over Flurry as applied to claim 3 and further in view of U.S. Patent No. 5,703,806 to Puar et al. Claims 14, and 16-18 stands rejected under § 35 U.S.C. 103(a) as being unpatentable over U.S Patent No. Flurry and further in view of U.S Patent No. 5,6,311,204 to Mills. Claims 5 and 6 stand rejected under § 35 U.S.C. 103(a) as being unpatentable over Flurry and further in view of U.S. Patent No. 6,252,600 B1 to Kohli et al. Claim(s) 15 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1, 17, and 21 have been amended. Claims 13, 15, and 19 have been canceled without prejudice. New claims 24-27 have been added.

The Examiner rejected claim 1 under § 35 U.S.C. 102(b) as being anticipated by Flurry. Applicants respectfully submit that claim 1, as amended, is not anticipated by Flurry under § 35 U.S.C. 102(b). Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 1, as amended, includes the limitations formerly stated in objected claim 15.

Claim 1, as amended, states:

1. An apparatus, comprising:

a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices, the two or more independent images include a first independent image and a second independent image; and

a graphics context manager to store in a first memory area and restore from the first memory area information describing a first rendering context associated with the first independent image, the graphics context manager to store in a second memory area and restore from the second memory area information describing a second rendering context associated with the second independent image; and

a time allocator to arbitrate the use of the graphics-rendering engine between the two or more independent images, wherein the time allocator comprises a first module to establish a programmable elapsed period of time to use the graphics-rendering engine, the period of time is defined by a programmable number of unit time periods, where each unit time period is defined by a programmable number of real-time time quanta.

(emphasis added)

Accordingly, applicants respectfully submit that independent claim 1, as amended, overcomes the above rejection.

Likewise, applicants respectfully submit new claim 24 is not anticipated by Flurry under § 35 U.S.C. 102(b). New claim 24 states:

24. (New) A system, comprising:

a processing unit; and

a graphics device, the processing unit coupled to the graphics device, wherein the graphics device contains

a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices,

a graphics context manager to store in a first memory area and restore from the first memory area information describing a first rendering context associated with the first independent image, the graphics context manager to store in a second memory area and restore from the second memory area information describing a second rendering context associated with the second independent image, and

a time allocator to arbitrate the use of the graphics-rendering engine between the two or more independent images, wherein the time allocator comprises a first module to establish a programmable elapsed period of time to use the graphics-rendering engine, the period of time is defined by a programmable number of unit time periods, where each unit time period is defined by a programmable number of real-time time quanta.

(emphasis added)

Accordingly, applicants respectfully submit that independent claim 24 would not be anticipated by Flurry under § 35 U.S.C. 102(b).

The Examiner rejected claim 17 under § 35 U.S.C. 102(b) as being anticipated by Flurry. Applicants respectfully submit that claim 17, as amended, is not anticipated by Flurry under § 35 U.S.C. 102(b). Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 17, as amended, includes most of the limitations of objected claim 19 along with a grammatical correction to clarify the claim.

Claim 17, as amended, states:

17: A method, comprising:
concurrently rendering instructions associated with multiple independent images within a first instruction-stream;
storing in a first memory area information representing a first rendering context associated with a first independent image;
restoring from a second memory area instructions representing a second rendering context associated with a second independent image,
wherein the first memory area and the second memory area are included in a plurality of memory areas;
switching the first rendering context to the second rendering context;
and
using a volatile memory device to track which memory area in the plurality of memory areas contains the rendering context information to be supplied to a graphics-rendering engine.

(emphasis added)

Accordingly, applicants respectfully submit that independent claim 17, as amended, overcomes the above rejection.

Likewise, applicants respectfully submit new claim 25 is not anticipated by Flurry under § 35 U.S.C. 102(b). New claim 25 states:

25. (New) An apparatus, comprising:
means for concurrently rendering instructions associated with multiple independent images within a first instruction-stream;
means for storing in a first memory area information representing a first rendering context associated with a first independent image;
means for restoring from a second memory area instructions representing a second rendering context associated with a second independent image, wherein the first memory area and the second memory area are included in a plurality of memory areas;
means for switching the first rendering context to the second rendering context; and
a volatile memory device to track which memory area in the plurality of memory areas contains the rendering context information to be supplied to a graphics-rendering engine.

(emphasis added)

Accordingly, applicants respectfully submit that independent claim 25 would not be anticipated by Flurry under § 35 U.S.C. 102(b).

The Examiner rejected claim 21 under § 35 U.S.C. 102(b) as being anticipated by Flurry. Applicants respectfully submit that claim 21, as amended, is not anticipated by Flurry under § 35 U.S.C. 102(b). Claim 21 states:

21. A system, comprising:
a processing unit; and
a graphics device, the processing unit coupled to the graphics device, the graphics device containing
a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices,
a graphics context manager to store in a first memory area and restore from the first memory area information describing a first rendering context associated with the first independent image, the graphics context manager to store in a second memory area and restore from the second memory area information describing a second rendering context associated with the second independent image, wherein the first memory area and the second memory area are included in a plurality of memory areas, and

a volatile memory device to track which memory area in the plurality of memory areas contains the rendering context information to be supplied to a graphics-rendering engine.

(emphasis added)

Accordingly, applicants respectfully submit that independent claim 21 is not anticipated by Flurry under § 35 U.S.C. 102(b).

The Examiner rejected claims 2 and 7-12 under § 35 U.S.C. 102(b) as being anticipated by Flurry. Claims 2 and 7-12 depend from and include the limitations of independent claim 1, accordingly, applicants respectfully submit that claims 2 and 7-12 are also not anticipated by Flurry under § 35 U.S.C. 102(b).

The Examiner rejected claim 20 under § 35 U.S.C. 102(b) as being anticipated by Flurry. Claim 20 depends from and includes the limitations of independent claim 17, accordingly, applicants respectfully submit that claim 20 also not anticipated by Flurry under § 35 U.S.C. 102(b).

The Examiner rejected claims 21 and 22 under § 35 U.S.C. 102(b) as being anticipated by Flurry. Claims 21 and 22 depend from and include the limitations of independent claim 21, accordingly, applicants respectfully submit that claims 21 and 22 are also not anticipated by Flurry under § 35 U.S.C. 102(b).

The Examiner rejected claim 3 under § 35 U.S.C. 103 (a) as being unpatentable over Flurry. Claim 3 depends from and includes the limitations of independent claim 1, as amended. In view of the remarks above, applicants respectfully submit that claim 3 is also not obvious in view of Flurry.

The Examiner rejected claim 4 under § 35 U.S.C. 103(a) as being unpatentable over Flurry in view of Puar. Claim 4 depends from and includes the limitations of

independent claim 1, as amended. In view of the remarks above, applicants respectfully submit that claim 3 is also not obvious in view of Flurry and Puar.

The Examiner rejected claims 14 and 16 under § 35 U.S.C. 103(a) as being unpatentable over Flurry in view of Mills. Claims 14 and 16 depend from and include the limitations of independent claim 1, as amended. In view of the remarks above, applicants respectfully submit that claims 14 and 16 are also not obvious in view of Flurry and Mills.

The Examiner rejected claim 18 under § 35 U.S.C. 103(a) as being unpatentable over Flurry in view of Mills. Claim 18 depends from and includes the limitations of independent claim 17, as amended. In view of the remarks above, applicants respectfully submit that claim 18 is also not obvious in view of Flurry and Mills.

The Examiner rejected claims 5 and 6 under § 35 U.S.C. 103(a) as being unpatentable over Flurry in view of Kohli. Claims 5 and 6 depend from and include the limitations of independent claim 1, as amended. In view of the remarks above, applicants respectfully submit that claims 5 and 6 are also not obvious in view of Flurry and Kohli.

Conclusion

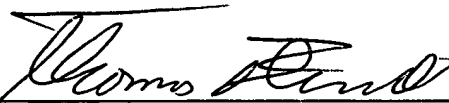
It is respectfully submitted that in view of the amendments and remarks set forth herein, the rejections and objections have been overcome. Applicant respectfully requests that a timely Notice of Allowance be issued in this case. An Information Disclosure Statement is also submitted with this amendment. Applicants reserve all rights with respect to the application of the doctrine equivalents. If there are any additional charges, please charge them to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: _____

2-4-04



Thomas S. Ferrill
Reg. No. 42,532
Tel.: (408) 720-8300

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, CA 90025-1026